

workshops, including one on heart failure, are being planned. The guidelines are not intended to be prescriptive, but to act as a resource for locally based audit activity. In a different approach to audit, Dr Richard Wray has prepared guidelines on bilateral audit visits between pairs of units. Further information on any of these activities can be obtained from the chairman, Professor David de Bono, Glenfield Hospital, Leicester, LE3 9QP (tel: 0533 871471. fax: 0533 875792), who would also be happy to hear suggestions about other possible audit activities."

### European Society of Cardiology

Philip Poole-Wilson writes: "The European Heart House was officially opened on 31 August 1993. In October the administrative section of the building was occupied. Offices in Nyon, Switzerland, and temporary offices in Sofia Antipolis have now been closed. The building is handsome and in a very attractive part of Europe. The internal rooms have not all been completed and there is opportunity for further developments in the next 5-10 years. The major meeting room is complete and the building is now available for educational and teaching purposes. The working groups are expected to use the facilities extensively and many other meetings on cardiovascular medicine are being arranged. These meetings will be sponsored by the European Society of Cardiology and will need to abide by the published rules."

"In addition there is an education and training programme for 1994. This has been organised by the Education and House Committee, which is chaired by Maarten Simoons. The programme for 1994 has events occurring each month for three days. The goal is to encourage post-graduate education among European cardiologists. Three to five faculty members will provide an intense programme. The topics covered include interventional cardiology, pacemakers, stress echocardiography, heart failure, myocardial infarction, angina pectoris, endocarditis, automatic defibrillators, and the prevention of coronary heart disease."

"The details of the programme and further information can be obtained from:

ECOR Meeting Services Department,  
European Heart House, 2035 Route des  
Colles, Les Templiers, BP 179, 06903  
Sophia Antipolis, Cedex, France."

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## CLINICAL GUIDELINES

### Choice of route for insertion of temporary pacing wires: Recommendations of the Medical Practice Committee and Council of the British Cardiac Society

The choice of site for inserting temporary pacemaker wires depends on consideration of the potential problems with venous access (common to all venous cannulation) and the particular problems of temporary wires in the chosen location. Intensive care specialists have studied the pros and cons of different routes, particularly in relation to the skill of the operator. It is clear that of the veins under consideration (internal jugular, subclavian, supraclavicular, femoral, brachial, and external jugular) those that require the least skill for successful cannulation are the femoral and brachial. They are also the sites with fewest immediate complications because the area is readily compressible. However, the success rate of relatively inexperienced operators with cannulation of the internal jugular vein is also high with few complications. The subclavian route is the most hazardous, largely because of the risk of pneumothorax and of damage to the subclavian artery, but in experienced hands is probably no worse

than the internal jugular approach. All central venous cannulation may become much less hazardous with the advent of ultrasound guides, which cost about £5000. The supraclavicular approach is popular in some parts of the United Kingdom and may well become more popular as the use of ultrasound guidance increases.

When any central venous cannula is left in situ the risks of infection and thrombosis increase. The risk of infection may be slightly higher with femoral cannulas than with jugular or subclavian ones, but with the femoral route the greatest fear has been of thrombosis with the associated risk of a massive pulmonary embolus. In early trials the incidence of thrombosis was so high that this route fell out of favour. However, concern that these trials were flawed has stimulated further research, which is in progress.

The right internal jugular vein provides the most direct route to the right ventricle and if flotation catheters are used it is the most likely to be successful. The supraclavicular route too provides direct access and potentially gives a more stable wire position. With flotation wires the left subclavian approach is also easy but use of this route may interfere with subsequent permanent pacing. The femoral route is not routinely recommended because inexperienced operators find it difficult to negotiate from here to the right heart, and there is anecdotal evidence that it gives the least stable wire position. Use of the femoral route restricts the patient's mobility. This is important if there is a wait of a week or more before a permanent pacemaker is implanted. Immobility also increases the likelihood of deep venous thrombosis. The subclavian route is the most comfortable for the patient and does not restrict mobility.

We recommend that the best route for most patients is the right internal jugular vein, particularly for those operators with the least experience in central venepuncture. Operators who are experienced in subclavian and supraclavicular puncture should use these approaches and the patient will be minimally restricted. The femoral, brachial, or external jugular veins are the preferred routes in patients who are being given thrombolytic agents.

## NOTICES

The 1994 Annual Meeting of the **British Cardiac Society** will take place at the Riviera Centre, Torquay from 17 to 20 May.

Medical screening provides many opportunities for the prevention of disease and handicap. What can it offer and what is its limitation? Based on several case studies, **Medical screening: the way forward**, organised jointly by *BMJ* and *Journal of Medical Screening* is a one day conference to be held on 26 January 1994 at the QE2 Conference Centre, London to examine the medical, scientific, ethical, social, psycho-

logical and economic aspects of screening. For more information contact Pru Walters, BMA Conference Unit, BMA House, Tavistock Square, London WC1H 9JR. (tel: 071-383 6605. fax: 071-383 6400).

The **Tenth ASEAN Congress of Cardiology** will be held in Bangkok from 26 to 30 November 1994. Further details can be obtained from the secretariat: Dr Y Sahasakul, Division of Cardiology, Department of Medicine, Siriraj Hospital, Bangkok 10700, Thailand.

**Short Courses in Cardiovascular Epidemiology:** This course, which is largely for trainees in cardiology and cardiovascular medicine, will be held from 11 to 13 April 1994. The course will take place at the London School of Hygiene and

Tropical Medicine. It will cover the interpretation of epidemiology studies of cardiovascular disease and primary and secondary prevention. Further details can be obtained from Dr Margaret Parker, Short Course Office, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT (tel: 071-927 2074).

Under the auspices of the European Society of Cardiology a joint meeting of the Working Group on Exercise Physiology, Physiopathology and Electrocardiography and the Heart Failure Task Force entitled **Heart failure—therapeutic targets—the pump or the periphery** will be held from 9 to 11 June 1994 in Glasgow. Further information can be obtained from the Secretariat, Adelphi Communications Limited, Adelphi Mill, Bollington, Cheshire, SK10 5JB (tel: 0625 575500).